SCORE Search Results Details for Application 09961086 and Search Result 20080917_142913_us-09-961-086a-1.rai.

This page gives you Search Results detail for the Application 09961086 and Search Result 20080917_142913_us-09-961-086a-1.rai.

Go Back to previous page

GenCore version 6.2.1

OM protein - protein search, using sw model

Run on: September 18, 2008, 22:07:19 ; Search time 74 Seconds
(without alignments)
1809.433 Million cell updates/sec

Title: US-09-961-086A-1
Perfect score: 3352
Sequence: 1 MSSSNVEVFIPVSQGNTNGF.....MIVIFLTIAYLKLLFLKKYS 655

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1246758 seqs, 204424485 residues

Total number of hits satisfying chosen parameters: 1246758

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Issued_Patents_AA:*
1: /ABSS/Data/CRF/ptodata/2/iaa/5_COMB.pep:*
2: /ABSS/Data/CRF/ptodata/2/iaa/6_COMB.pep:*
3: /ABSS/Data/CRF/ptodata/2/iaa/7_COMB.pep:*
4: /ABSS/Data/CRF/ptodata/2/iaa/H_COMB.pep:*
5: /ABSS/Data/CRF/ptodata/2/iaa/PCTUS_COMB.pep:*
6: /ABSS/Data/CRF/ptodata/2/iaa/RE_COMB.pep:*
7: /ABSS/Data/CRF/ptodata/2/iaa/backfiles1.pep:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,

and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	3352	100.0	655	2	US-09-245-808-1	Sequence 1, Appli
2	3331	99.4	655	2	US-09-767-594-1	Sequence 1, Appli
3	3331	99.4	655	2	US-09-584-586-10	Sequence 10, Appl
4	3331	99.4	655	3	US-09-856-927-2	Sequence 2, Appli
5	2757	82.2	657	2	US-09-584-586-14	Sequence 14, Appl
6	835.5	24.9	1049	2	US-09-538-092-72	Sequence 72, Appl
7	835.5	24.9	1049	3	US-10-369-493-1520	Sequence 1520, Ap
8	812	24.2	687	3	US-09-619-049-264	Sequence 264, App
9	795.5	23.7	676	3	US-10-369-493-3799	Sequence 3799, Ap
10	706.5	21.1	674	2	US-09-538-092-1125	Sequence 1125, Ap
11	702.5	21.0	663	3	US-10-473-696-6	Sequence 6, Appli
12	702.5	21.0	663	3	US-11-567-079-6	Sequence 6, Appli
13	693.5	20.7	652	2	US-09-989-981A-2	Sequence 2, Appli
14	693.5	20.7	652	3	US-09-837-992-1	Sequence 1, Appli
15	693.5	20.7	652	3	US-11-128-026-1	Sequence 1, Appli
16	682.5	20.4	651	2	US-09-989-981A-6	Sequence 6, Appli
17	682.5	20.4	651	3	US-09-837-992-3	Sequence 3, Appli
18	682.5	20.4	651	3	US-11-128-026-3	Sequence 3, Appli
19	677	20.2	559	3	US-10-369-493-5740	Sequence 5740, Ap
20	664	19.8	608	3	US-10-369-493-5748	Sequence 5748, Ap
21	658.5	19.6	1095	3	US-10-369-493-2025	Sequence 2025, Ap
22	657.5	19.6	672	2	US-09-989-981A-4	Sequence 4, Appli
23	640.5	19.1	673	2	US-09-989-981A-8	Sequence 8, Appli
24	639	19.1	658	3	US-10-369-493-5347	Sequence 5347, Ap
25	636.5	19.0	639	3	US-10-369-493-6184	Sequence 6184, Ap
26	636.5	19.0	695	3	US-10-369-493-6199	Sequence 6199, Ap
27	627.5	18.7	610	3	US-10-369-493-5687	Sequence 5687, Ap
28	623	18.6	147	2	US-09-584-586-12	Sequence 12, Appl
29	623	18.6	147	3	US-09-856-927-4	Sequence 4, Appli
30	612.5	18.3	1501	2	US-09-487-558B-346	Sequence 346, App
31	612.5	18.3	1501	3	US-10-369-493-1606	Sequence 1606, Ap
32	602	18.0	1511	2	US-09-487-558B-250	Sequence 250, App
33	602	18.0	1511	3	US-10-369-493-22380	Sequence 22380, A
34	594	17.7	1564	2	US-09-487-558B-244	Sequence 244, App
35	594	17.7	1564	3	US-10-369-493-22424	Sequence 22424, A
36	589	17.6	1549	3	US-10-369-493-3919	Sequence 3919, Ap
37	580.5	17.3	1529	3	US-10-369-493-1692	Sequence 1692, Ap
38	567	16.9	617	2	US-09-614-912-138	Sequence 138, App
39	561.5	16.8	1395	3	US-10-369-493-4054	Sequence 4054, Ap
40	552.5	16.5	611	3	US-10-369-493-12397	Sequence 12397, A
41	544	16.2	1511	3	US-10-369-493-22496	Sequence 22496, A
42	538	16.1	1448	3	US-10-369-493-3997	Sequence 3997, Ap
43	537.5	16.0	560	3	US-10-369-493-12899	Sequence 12899, A
44	537	16.0	1296	2	US-09-614-912-140	Sequence 140, App
45	533.5	15.9	1627	3	US-10-369-493-3838	Sequence 3838, Ap

ALIGNMENTS

RESULT 1
US-09-245-808-1
; Sequence 1, Application US/09245808
; Patent No. 6313277
; GENERAL INFORMATION:
; APPLICANT: Doyle, L. Austin
; APPLICANT: Abruzzo, Lynne V.
; APPLICANT: Ross, Douglas D.
; TITLE OF INVENTION: Breast Cancer Resistance Protein (BCRP) and DNA which
; TITLE OF INVENTION: encodes it
; FILE REFERENCE: Ross UMb conversion
; CURRENT APPLICATION NUMBER: US/09/245,808
; CURRENT FILING DATE: 1999-02-05
; EARLIER APPLICATION NUMBER: 60/073763
; EARLIER FILING DATE: 1998-02-05
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 1
;   LENGTH: 655
;   TYPE: PRT
;   ORGANISM: Human MCF-7/AdrVp cells
US-09-245-808-1

  Query Match   100.0%; Score 3352; DB 2; Length 655;
  Best Local Similarity   100.0%; Pred. No. 0;
  Matches 655; Conservative   0; Mismatches   0; Indels   0; Gaps   0;

```
Qy          1 MSSSNVEVFIPVSQGNTNGFPATASNDLKAFTEGAVLSFHNICYRVKLKSGFLPCRKPVE 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MSSSNVEVFIPVSQGNTNGFPATASNDLKAFTEGAVLSFHNICYRVKLKSGFLPCRKPVE 60

Qy         61 KEILSNINGIMKPGLNAILGPTGGGKSSLLDVLAARKDPSGLSGDVLINGAPRPANFKCN 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 KEILSNINGIMKPGLNAILGPTGGGKSSLLDVLAARKDPSGLSGDVLINGAPRPANFKCN 120

Qy        121 SGYVVQDDVVMGTLTVRENLQFSAALRLATTMTNHEKNERINRVIQELGLDKVADSKVGT 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 SGYVVQDDVVMGTLTVRENLQFSAALRLATTMTNHEKNERINRVIQELGLDKVADSKVGT 180

Qy        181 QFIRGVSGGERKRTSIGMELITDPSILFLDEPTTGLDSSTANAVLLLLKRMSKQGRTIIF 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 QFIRGVSGGERKRTSIGMELITDPSILFLDEPTTGLDSSTANAVLLLLKRMSKQGRTIIF 240

Qy        241 SIHQPRYSIFKLFDSLTLLASGRLMFHGPAQEALGYFESAGYHCEAYNNPADFFLDIING 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 SIHQPRYSIFKLFDSLTLLASGRLMFHGPAQEALGYFESAGYHCEAYNNPADFFLDIING 300
```

```
Qy         301 DSTAVALNREEDFKATEIIEPSKQDKPLIEKLAEIYVNSSFYKETKAELHQLSGGEKKKK 360
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         301 DSTAVALNREEDFKATEIIEPSKQDKPLIEKLAEIYVNSSFYKETKAELHQLSGGEKKKK 360

Qy         361 ITVFKEISYTTSFCHQLRWVSKRSFKNLLGNPQASIAQIIVTVVLGLVIGAIYFGLKNDS 420
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         361 ITVFKEISYTTSFCHQLRWVSKRSFKNLLGNPQASIAQIIVTVVLGLVIGAIYFGLKNDS 420

Qy         421 TGIQNRAGVLFFLTTNQCFSSVSAVELFVVEKKLFIHEYISGYYRVSSYFLGKLLSDLLP 480
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         421 TGIQNRAGVLFFLTTNQCFSSVSAVELFVVEKKLFIHEYISGYYRVSSYFLGKLLSDLLP 480

Qy         481 MTMLPSIIFTCIVYFMLGLKPKADAFFVMMFTLMMVAYSASSMALAIAAGQSVVSVATLL 540
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         481 MTMLPSIIFTCIVYFMLGLKPKADAFFVMMFTLMMVAYSASSMALAIAAGQSVVSVATLL 540

Qy         541 MTICFVFMMIFSGLLVNLTTIASWLSWLQYFSIPRYGFTALQHNEFLGQNFCPGLNATGN 600
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         541 MTICFVFMMIFSGLLVNLTTIASWLSWLQYFSIPRYGFTALQHNEFLGQNFCPGLNATGN 600

Qy         601 NPCNYATCTGEEYLVKQGIDLSPWGLWKNHVALACMIVIFLTIAYLKLLFLKKYS 655
               |||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         601 NPCNYATCTGEEYLVKQGIDLSPWGLWKNHVALACMIVIFLTIAYLKLLFLKKYS 655
```

```
RESULT 2
US-09-767-594-1
; Sequence 1, Application US/09767594
; Patent No. 6521635
; GENERAL INFORMATION:
;  APPLICANT: Bates, Susan
;  APPLICANT:  Robey, Robert
;  APPLICANT:  The Government of the United States of America
;  APPLICANT:  as represented by the Secretary of the
;  APPLICANT:  Department of Health and Human Services
;  TITLE OF INVENTION: Inhibition of MXR Transport by Acridine Derivatives
;  FILE REFERENCE: 015280-402100US
;  CURRENT APPLICATION NUMBER: US/09/767,594
;  CURRENT FILING DATE:  2001-01-22
;  PRIOR APPLICATION NUMBER: US 60/177,410
;  PRIOR FILING DATE: 2000-01-20
;  NUMBER OF SEQ ID NOS: 2
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 1
;   LENGTH: 655
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   OTHER INFORMATION: human mitoxanthrone resistance (MXR)/BRCP/ABCP
;   OTHER INFORMATION: protein
US-09-767-594-1
```

Query Match 99.4%; Score 3331; DB 2; Length 655;
Best Local Similarity 99.4%; Pred. No. 0;
Matches 651; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

```
Qy          1 MSSSNVEVFIPVSQGNTNGFPATASNDLKAFTEGAVLSFHNICYRVKLKSGFLPCRKPVE 60
              ||||||||||||||||||||| ||||||||||||||||||||||||||||||||||||
Db          1 MSSSNVEVFIPVSQGNTNGFPATVSNDLKAFTEGAVLSFHNICYRVKLKSGFLPCRKPVE 60

Qy         61 KEILSNINGIMKPGLNAILGPTGGGKSSLLDVLAARKDPSGLSGDVLINGAPRPANFKCN 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 KEILSNINGIMKPGLNAILGPTGGGKSSLLDVLAARKDPSGLSGDVLINGAPRPANFKCN 120

Qy        121 SGYVVQDDVVMGTLTVRENLQFSAALRLATTMTNHEKNERINRVIQELGLDKVADSKVGT 180
              ||||||||||||||||||||||||||||||||||||||||||:|||||||||||||||
Db        121 SGYVVQDDVVMGTLTVRENLQFSAALRLATTMTNHEKNERINRVIEELGLDKVADSKVGT 180

Qy        181 QFIRGVSGGERKRTSIGMELITDPSILFLDEPTTGLDSSTANAVLLLLKRMSKQGRTIIF 240
              |||||||||||||||||||||||| ||||||||||||||||||||||||||||||||||
Db        181 QFIRGVSGGERKRTSIGMELITDPSILSLDEPTTGLDSSTANAVLLLLKRMSKQGRTIIF 240

Qy        241 SIHQPRYSIFKLFDSLTLLASGRLMFHGPAQEALGYFESAGYHCEAYNNPADFFLDIING 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 SIHQPRYSIFKLFDSLTLLASGRLMFHGPAQEALGYFESAGYHCEAYNNPADFFLDIING 300

Qy        301 DSTAVALNREEDFKATEIIEPSKQDKPLIEKLAEIYVNSSFYKETKAELHQLSGGEKKKK 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 DSTAVALNREEDFKATEIIEPSKQDKPLIEKLAEIYVNSSFYKETKAELHQLSGGEKKKK 360

Qy        361 ITVFKEISYTTSFCHQLRWVSKRSFKNLLGNPQASIAQIIVTVVLGLVIGAIYFGLKNDS 420
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        361 ITVFKEISYTTSFCHQLRWVSKRSFKNLLGNPQASIAQIIVTVVLGLVIGAIYFGLKNDS 420

Qy        421 TGIQNRAGVLFFLTTNQCFSSVSAVELFVVEKKLFIHEYISGYYRVSSYFLGKLLSDLLP 480
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        421 TGIQNRAGVLFFLTTNQCFSSVSAVELFVVEKKLFIHEYISGYYRVSSYFLGKLLSDLLP 480

Qy        481 MTMLPSIIFTCIVYFMLGLKPKADAFFVMMFTLMMVAYSASSMALAIAAGQSVVSVATLL 540
              | ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        481 MRMLPSIIFTCIVYFMLGLKPKADAFFVMMFTLMMVAYSASSMALAIAAGQSVVSVATLL 540

Qy        541 MTICFVFMMIFSGLLVNLTTIASWLSWLQYFSIPRYGFTALQHNEFLGQNFCPGLNATGN 600
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        541 MTICFVFMMIFSGLLVNLTTIASWLSWLQYFSIPRYGFTALQHNEFLGQNFCPGLNATGN 600

Qy        601 NPCNYATCTGEEYLVKQGIDLSPWGLWKNHVALACMIVIFLTIAYLKLLFLKKYS 655
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        601 NPCNYATCTGEEYLVKQGIDLSPWGLWKNHVALACMIVIFLTIAYLKLLFLKKYS 655
```

RESULT 3
US-09-584-586-10
; Sequence 10, Application US/09584586

; Patent No. 6933150
; GENERAL INFORMATION:
; APPLICANT: Sorrentino, Brian
; APPLICANT: Bunting, Kevin
; TITLE OF INVENTION: EXPANSION OF HEMATOPOIETIC STEM CELLS TRANSDUCED WITH
; TITLE OF INVENTION: MDR-1 METHODS OF USE THEREOF
; FILE REFERENCE: 1340-1-021CIP
; CURRENT APPLICATION NUMBER: US/09/584,586
; CURRENT FILING DATE: 2000-05-31
; EARLIER APPLICATION NUMBER: US 60/086,988
; EARLIER FILING DATE: 1998-05-28
; EARLIER APPLICATION NUMBER: PCT/US99/11825
; EARLIER FILING DATE: 1999-05-27
; NUMBER OF SEQ ID NOS: 16
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 10
;   LENGTH: 655
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-584-586-10

  Query Match   99.4%; Score 3331; DB 2; Length 655;
  Best Local Similarity   99.4%; Pred. No. 0;
  Matches 651; Conservative   1; Mismatches   3; Indels   0; Gaps   0;

```
Qy          1 MSSSNVEVFIPVSQGNTNGFPATASNDLKAFTEGAVLSFHNICYRVKLKSGFLPCRKPVE 60
              |||||||||||||||||||||| ||||||||||||||||||||||||||||||||||||
Db          1 MSSSNVEVFIPVSQGNTNGFPATVSNDLKAFTEGAVLSFHNICYRVKLKSGFLPCRKPVE 60

Qy         61 KEILSNINGIMKPGLNAILGPTGGGKSSLLDVLAARKDPSGLSGDVLINGAPRPANFKCN 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 KEILSNINGIMKPGLNAILGPTGGGKSSLLDVLAARKDPSGLSGDVLINGAPRPANFKCN 120

Qy        121 SGYVVQDDVVMGTLTVRENLQFSAALRLATTMTNHEKNERINRVIQELGLDKVADSKVGT 180
              ||||||||||||||||||||||||||||||||||||||||||:|||||||||||||||||
Db        121 SGYVVQDDVVMGTLTVRENLQFSAALRLATTMTNHEKNERINRVIEELGLDKVADSKVGT 180

Qy        181 QFIRGVSGGERKRTSIGMELITDPSILFLDEPTTGLDSSTANAVLLLLKRMSKQGRTIIF 240
              |||||||||||||||||||||||| ||||||||||||||||||||||||||||||||||
Db        181 QFIRGVSGGERKRTSIGMELITDPSILSLDEPTTGLDSSTANAVLLLLKRMSKQGRTIIF 240

Qy        241 SIHQPRYSIFKLFDSLTLLASGRLMFHGPAQEALGYFESAGYHCEAYNNPADFFLDIING 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 SIHQPRYSIFKLFDSLTLLASGRLMFHGPAQEALGYFESAGYHCEAYNNPADFFLDIING 300

Qy        301 DSTAVALNREEDFKATEIIEPSKQDKPLIEKLAEIYVNSSFYKETKAELHQLSGGEKKKK 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 DSTAVALNREEDFKATEIIEPSKQDKPLIEKLAEIYVNSSFYKETKAELHQLSGGEKKKK 360

Qy        361 ITVFKEISYTTSFCHQLRWVSKRSFKNLLGNPQASIAQIIVTVVLGLVIGAIYFGLKNDS 420
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        361 ITVFKEISYTTSFCHQLRWVSKRSFKNLLGNPQASIAQIIVTVVLGLVIGAIYFGLKNDS 420
```

```
Qy         421 TGIQNRAGVLFFLTTNQCFSSVSAVELFVVEKKLFIHEYISGYYRVSSYFLGKLLSDLLP 480
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         421 TGIQNRAGVLFFLTTNQCFSSVSAVELFVVEKKLFIHEYISGYYRVSSYFLGKLLSDLLP 480

Qy         481 MTMLPSIIFTCIVYFMLGLKPKADAFFVMMFTLMMVAYSASSMALAIAAGQSVVSVATLL 540
               | ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         481 MRMLPSIIFTCIVYFMLGLKPKADAFFVMMFTLMMVAYSASSMALAIAAGQSVVSVATLL 540

Qy         541 MTICFVFMMIFSGLLVNLTTIASWLSWLQYFSIPRYGFTALQHNEFLGQNFCPGLNATGN 600
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         541 MTICFVFMMIFSGLLVNLTTIASWLSWLQYFSIPRYGFTALQHNEFLGQNFCPGLNATGN 600

Qy         601 NPCNYATCTGEEYLVKQGIDLSPWGLWKNHVALACMIVIFLTIAYLKLLFLKKYS 655
               |||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         601 NPCNYATCTGEEYLVKQGIDLSPWGLWKNHVALACMIVIFLTIAYLKLLFLKKYS 655


RESULT 4
US-09-856-927-2
; Sequence 2, Application US/09856927
; Patent No. 7138493
; GENERAL INFORMATION:
;  APPLICANT: Dean, Michael
;  APPLICANT:  Allikmets, Rando
;  APPLICANT:  Bates, Susan E.
;  APPLICANT:  Fojo, Antonio T.
;  APPLICANT:  The Government of the United States of America
;  APPLICANT:  as represented by the Secretary of the
;  APPLICANT:  Department of Health and Human Services
;  TITLE OF INVENTION: A No. 7138493el ATP-Binding Cassette Protein Responsible for
;  TITLE OF INVENTION:  Cytotoxin Resistance
;  FILE REFERENCE: 015280-382100US
;  CURRENT APPLICATION NUMBER: US/09/856,927
;  CURRENT FILING DATE:  2001-05-29
;  PRIOR APPLICATION NUMBER: US 60/110,473
;  PRIOR FILING DATE: 1998-11-30
;  PRIOR APPLICATION NUMBER: WO PCT/US99/28107
;  PRIOR FILING DATE: 1999-11-24
;  NUMBER OF SEQ ID NOS: 6
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 2
;   LENGTH: 655
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-856-927-2

  Query Match             99.4%;  Score 3331;  DB 3;  Length 655;
  Best Local Similarity   99.4%;  Pred. No. 0;
  Matches  651;  Conservative    1;  Mismatches    3;  Indels    0;  Gaps    0;

Qy           1 MSSSNVEVFIPVSQGNTNGFPATASNDLKAFTEGAVLSFHNICYRVKLKSGFLPCRKPVE 60
```

```
                  |||||||||||||||||||||| ||||||||||||||||||||||||||||||||||
Db          1 MSSSNVEVFIPVSQGNTNGFPATVSNDLKAFTEGAVLSFHNICYRVKLKSGFLPCRKPVE 60

Qy         61 KEILSNINGIMKPGLNAILGPTGGGKSSLLDVLAARKDPSGLSGDVLINGAPRPANFKCN 120
                  ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 KEILSNINGIMKPGLNAILGPTGGGKSSLLDVLAARKDPSGLSGDVLINGAPRPANFKCN 120

Qy        121 SGYVVQDDVVMGTLTVRENLQFSAALRLATTMTNHEKNERINRVIQELGLDKVADSKVGT 180
                  |||||||||||||||||||||||||||||||||||||||||:|||||||||||||||
Db        121 SGYVVQDDVVMGTLTVRENLQFSAALRLATTMTNHEKNERINRVIEELGLDKVADSKVGT 180

Qy        181 QFIRGVSGGERKRTSIGMELITDPSILFLDEPTTGLDSSTANAVLLLLKRMSKQGRTIIF 240
                  |||||||||||||||||||||||| ||||||||||||||||||||||||||||||||
Db        181 QFIRGVSGGERKRTSIGMELITDPSILSLDEPTTGLDSSTANAVLLLLKRMSKQGRTIIF 240

Qy        241 SIHQPRYSIFKLFDSLTLLASGRLMFHGPAQEALGYFESAGYHCEAYNNPADFFLDIING 300
                  ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 SIHQPRYSIFKLFDSLTLLASGRLMFHGPAQEALGYFESAGYHCEAYNNPADFFLDIING 300

Qy        301 DSTAVALNREEDFKATEIIEPSKQDKPLIEKLAEIYVNSSFYKETKAELHQLSGGEKKKK 360
                  ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 DSTAVALNREEDFKATEIIEPSKQDKPLIEKLAEIYVNSSFYKETKAELHQLSGGEKKKK 360

Qy        361 ITVFKEISYTTSFCHQLRWVSKRSFKNLLGNPQASIAQIIVTVVLGLVIGAIYFGLKNDS 420
                  ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        361 ITVFKEISYTTSFCHQLRWVSKRSFKNLLGNPQASIAQIIVTVVLGLVIGAIYFGLKNDS 420

Qy        421 TGIQNRAGVLFFLTTNQCFSSVSAVELFVVEKKLFIHEYISGYYRVSSYFLGKLLSDLLP 480
                  ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        421 TGIQNRAGVLFFLTTNQCFSSVSAVELFVVEKKLFIHEYISGYYRVSSYFLGKLLSDLLP 480

Qy        481 MTMLPSIIFTCIVYFMLGLKPKADAFFVMMFTLMMVAYSASSMALAIAAGQSVVSVATLL 540
                  | ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        481 MRMLPSIIFTCIVYFMLGLKPKADAFFVMMFTLMMVAYSASSMALAIAAGQSVVSVATLL 540

Qy        541 MTICFVFMMIFSGLLVNLTTIASWLSWLQYFSIPRYGFTALQHNEFLGQNFCPGLNATGN 600
                  ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        541 MTICFVFMMIFSGLLVNLTTIASWLSWLQYFSIPRYGFTALQHNEFLGQNFCPGLNATGN 600

Qy        601 NPCNYATCTGEEYLVKQGIDLSPWGLWKNHVALACMIVIFLTIAYLKLLFLKKYS 655
                  ||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        601 NPCNYATCTGEEYLVKQGIDLSPWGLWKNHVALACMIVIFLTIAYLKLLFLKKYS 655


RESULT 5
US-09-584-586-14
; Sequence 14, Application US/09584586
; Patent No. 6933150
; GENERAL INFORMATION:
;  APPLICANT: Sorrentino, Brian
;  APPLICANT: Bunting, Kevin
;  TITLE OF INVENTION: EXPANSION OF HEMATOPOIETIC STEM CELLS TRANSDUCED WITH
```

; TITLE OF INVENTION: MDR-1 METHODS OF USE THEREOF
; FILE REFERENCE: 1340-1-021CIP
; CURRENT APPLICATION NUMBER: US/09/584,586
; CURRENT FILING DATE: 2000-05-31
; EARLIER APPLICATION NUMBER: US 60/086,988
; EARLIER FILING DATE: 1998-05-28
; EARLIER APPLICATION NUMBER: PCT/US99/11825
; EARLIER FILING DATE: 1999-05-27
; NUMBER OF SEQ ID NOS: 16
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 14
;   LENGTH: 657
;   TYPE: PRT
;   ORGANISM: Mus musculus
US-09-584-586-14

  Query Match 82.2%; Score 2757; DB 2; Length 657;
  Best Local Similarity 81.5%; Pred. No. 3.2e-278;
  Matches 536; Conservative 51; Mismatches 67; Indels 4; Gaps 3;

```
Qy          1 MSSSNVEVFIPVSQGNTNGFPATASNDLKAFTEGAVLSFHNICYRVKLKSGFLPCRKPVE 60
              |||||  | :|:|| | || |   |  ::   || |||||:| ||||:|||||  || ||
Db          1 MSSSNDHVLVPMSQRNNNGLPRMNSRAVRTLAEGDVLSFHHITYRVKVKSGFL-VRKTVE 59

Qy         61 KEILSNINGIMKPGLNAILGPTGGGKSSLLDVLAARKDPSGLSGDVLINGAPRPANFKCN 120
              |||||:||||||||||||||||||||||||||||| ||||||||||||:||:|||
Db         60 KEILSDINGIMKPGLNAILGPTGGGKSSLLDVLAARKDPKGLSGDVLINGAPQPAHFKCC 119

Qy        121 SGYVVQDDVVMGTLTVRENLQFSAALRLATTMTNHEKNERINRVIQELGLDKVADSKVGT 180
              |||||||||||||||||||||||||| ||| ||||||||| :|:||||:|||||||||
Db        120 SGYVVQDDVVMGTLTVRENLQFSAALRLPTTMKNHEKNERINTIIKELGLEKVADSKVGT 179

Qy        181 QFIRGVSGGERKRTSIGMELITDPSILFLDEPTTGLDSSTANAVLLLLKRMSKQGRTIIF 240
              |||||:||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        180 QFIRGISGGERKRTSIGMELITDPSILFLDEPTTGLDSSTANAVLLLLKRMSKQGRTIIF 239

Qy        241 SIHQPRYSIFKLFDSLTLLASGRLMFHGPAQEALGYFESAGYHCEAYNNPADFFLDIING 300
              ||||||||||||||||||:|:|||||:|| || ||||||| ||||||||||:|||
Db        240 SIHQPRYSIFKLFDSLTLLASGKLVFHGPAQKALEYFASAGYHCEPYNNPADFFLDVING 299

Qy        301 DSTAVALNREE-DFKATEIIEPSKQDKPLIEKLAEIYVNSSFYKETKAELHQLSGGEKKK 359
              ||:|| ||||| | :| :  |||| :||:|| |:| |:||: | |||||| || | ::||
Db        300 DSSAVMLNREEQDNEANKTEEPSKGEKPVIENLSEFYINSAIYGETKAELDQLPGAQEKK 359

Qy        360 KITVFKEISYTTSFCHQLRWVSKRSFKNLLGNPQASIAQIIVTVVLGLVIGAIYFGLKND 419
                : |||  | |||||||||:::|||||||||||||:||:||||:|||:|||||| || |
Db        360 GTSAFKEPVYVTSFCHQLRWIARRSFKNLLGNPQASVAQLIVTVILGLIIGAIYFDLKYD 419

Qy        420 STGIQNRAGVLFFLTTNQCFSSVSAVELFVVEKKLFIHEYISGYYRVSSYFLGKLLSDLL 479
              : |:|||||||||||||||||||||||||||||||||||||||||||| ||::||||
Db        420 AAGMQNRAGVLFFLTTNQCFSSVSAVELFVVEKKLFIHEYISGYYRVSSYFFGKVMSDLL 479
```

```
Qy         480 PMTMLPSIIFTCIVYFMLGLKPKADAFFVMMFTLMMVAYSASSMALAIAAGQSVVSVATL 539
               ||  |||:|||||:|||||||   ||||:|||||:||||:||||||||| ||||||||||
Db         480 PMRFLPSVIFTCILYFMLGLKKTVDAFFIMMFTLIMVAYTASSMALAIATGQSVVSVATL 539

Qy         540 LMTICFVFMMIFSGLLVNLTTIASWLSWLQYFSIPRYGFTALQHNEFLGQNFCPGLNATG 599
               |||| |||||:|||||||| ||  |||||||||||||||||:|||||| |||| | |
Db         540 LMTIAFVFMMLFSGLLVNLRTIGPWLSWLQYFSIPRYGFTALQYNEFLGQEFCPGFNVTD 599

Qy         600 NNPC--NYATCTGEEYLVKQGIDLSPWGLWKNHVALACMIVIFLTIAYLKLLFLKKYS 655
               |: |  :|| ||| |||: |||:||||||||||||||:||||||||||||||||
Db         600 NSTCVNSYAICTGNEYLINQGIELSPWGLWKNHVALACMIIIFLTIAYLKLLFLKKYS 657


RESULT 6
US-09-538-092-72
; Sequence 72, Application US/09538092
; Patent No. 6753314
; GENERAL INFORMATION:
;  APPLICANT: Giot, Loic
;  APPLICANT:  Mansfield, Traci A.
;  TITLE OF INVENTION: Protein-Protein Complexes and Method of Using Same
;  FILE REFERENCE: 15966-542
;  CURRENT APPLICATION NUMBER: US/09/538,092
;  CURRENT FILING DATE:  2000-03-29
;  PRIOR APPLICATION NUMBER: 60/127,352
;  PRIOR FILING DATE: 1999-04-01
;  PRIOR APPLICATION NUMBER: 60/178,965
;  PRIOR FILING DATE: 2000-02-01
;  NUMBER OF SEQ ID NOS: 1387
;  SOFTWARE: CuraPatSeqFormatter Version 0.9
; SEQ ID NO 72
;   LENGTH: 1049
;   TYPE: PRT
;   ORGANISM: Saccharomyces cerevisiae
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION: (0)...(0)
;   OTHER INFORMATION: Polypeptide Accession Number YCR011C
US-09-538-092-72

  Query Match             24.9%;  Score 835.5;  DB 2;  Length 1049;
  Best Local Similarity   30.5%;  Pred. No. 4.5e-77;
  Matches  222;  Conservative  134;  Mismatches  257;  Indels  115;  Gaps   18;

Qy           1 MSSSNVEVFIPVSQGNTNGFPATASNDLKAFTEGAVLSFHNICYRVKLKSGFLPCRKPVE 60
               : ||   : :|  :   | |     : |      | ||| || | |   :        ||
Db         355 LGSSKSPIRLP-DEDAVNNFLQNEDDTL------ATLSFENITYSVPSINS-----DGVE 402

Qy          61 KEILSNINGIMKPG-LNAILGPTGGGKSSLLDVLAARKDPSGLSGDVLINGAPRP-ANFK 118
               : :|: |:||:||| : ||:| :| ||::|||:|| ::    :|| : :||      :|
Db         403 ETVLNEISGIVKPGQILAIMGGSGAGKTTLLDILAMKRKTGHVSGSIKVNGISMDRKSFS 462
```

```
Qy         119 CNSGYVVQDDVVMGTLTVRENLQFSAALRLATTMTNHEKNERINRVIQELGLDKVADSKV 178
                  |:| ||| :: |||| | :  || |||   ::   |  |: :|::|| :  : |  :
Db         463 KIIGFVDQDDFLLPTLTVFETVLNSALLRLPKALSFEAKKARVYKVLEELRIIDIKDRII 522

Qy         179 GTQFIRGVSGGERKRTSIGMELITDPSILFLDEPTTGLDSSTANAVLLLLKRMSKQ-GRT 237
               | :| ||:||||::| ||  ||:| | :|||||||:|||:| || |:  | |:|    ||
Db         523 GNEFDRGISGGEKRRVSIACELVTSPLVLFLDEPTSGLDASNANNVIECLVRLSSDYNRT 582

Qy         238 IIFSIHQPRYSIFKLFDSLTLLASGRLMFHGPAQEALGYFESAGYHCEAYNNPADFFLDI 297
               :: |||||| :|| ||| | ||: | ::: | |::   :  : || |    | ||: :||
Db         583 LVLSIHQPRSNIFYLFDKLVLLSKGEMVYSGNAKKVSEFLRNEGYICPDNYNIADYLIDI 642

Qy         298 ------------------------------------------------INGDSTAV 305
                                                               : |
Db         643 TFEAGPQGKRRRIRNISDLEAGTDTNDIDNTIHQTTFTSSDGTTQREWAHLAAHRDEIRS 702

Qy         306 ALNREEDFKATE----IIEPSKQDKPLIEKLAEIYVNSSFYKETKAELHQ-LSGGEKKKK 360
                |  ||| : |:      |     | | :|    | :| :| |   |: : || |:::
Db         703 LLRDEEDVEGTDGRRGATEIDLNTKLLHDK----YKDSVYYAELSQEIEEVLSEGDEESN 758

Qy         361 IT--VFKEISYTTSFCHQLRWVSKRSFKNLLGNPQASIAQIIVTVVLGLVIGAIYFGLKN 418
               :          :  |  ||  :: |||||:  ||:  :   ::|::| | :| :|: : |
Db         759 VLNGDLPTGQQSAGFLQQLSILNSRSFKNMYRNPKLLLGNYLLTILLSLFLGTLYYNVSN 818

Qy         419 DSTGIQNRAGVLFFLTTNQCFSSVSAVELFVVEKKLFIHEYISGYYRVSSYFLGKLLSDL 478
               | :| ||| |: ||: |   | : : :  | :|: :|| |  : ||   :|:: |::|::
Db         819 DISGFQNRMGLFFFILTYFGFVTFTGLSSFALERIIFIKERSNNYYSPLAYYISKIMSEV 878

Qy         479 LPMTMLPSIIFTCIVYFMLGLKPKADAFFVMMFTLMMVAYSASSMALAIAAGQSVVSVAT 538
               :|: ::| |: : ||| | ||  | :|||  :  |::     |   | |      :: :
Db         879 VPLRVVPPILLSLIVYPMTGLNMKDNAFFKCIGILILFNLGISLEILTIGIIFEDLNNSI 938

Qy         539 LLMTICFVFMMIFSGLLV---NLTTIASWLSWLQYFSIPRYGFTALQHNEF--------- 586
               :|  :  :  ::|||| :   |:| :|    :|: ||:  | : :|  ||
Db         939 ILSVLVLLGSLLFSGLFINTKNITNVA--FKYLKNFSVFYYAYESLLINEVKTLMLKERK 996

Qy         587 LGQNF-CPGLNATGNNPCNYATCTGEEYLVKQGI--DLSPWGLWKNHVALACMIVIFLTI 643
                | |   ||           ||       | | :  |:           ||   |:|| :
Db         997 YGLNIEVPG-----------ATILSTFGFVVQNLVFDIK---------ILALFNVVFLIM 1036

Qy         644 AYLKLLFL 651
                || | ::
Db        1037 GYLALKWI 1044
```

RESULT 7
US-10-369-493-1520
; Sequence 1520, Application US/10369493
; Patent No. 7314974
; GENERAL INFORMATION:
; APPLICANT: Cao, Yongwei
; APPLICANT: Hinkle, Gregory J.

; APPLICANT: Slater, Steven C.
; APPLICANT: Goldman, Barry S.
; APPLICANT: Chen, Xianfeng
; TITLE OF INVENTION: EXPRESSION OF MICROBIAL PROTEINS IN PLANTS FOR PRODUCTION OF
; TITLE OF INVENTION: PLANTS WITH IMPROVED PROPERTIES
; FILE REFERENCE: 38-10(52052)B
; CURRENT APPLICATION NUMBER: US/10/369,493
; CURRENT FILING DATE: 2003-02-28
; PRIOR APPLICATION NUMBER: US 60/360,039
; PRIOR FILING DATE: 2002-02-21
; NUMBER OF SEQ ID NOS: 47374
; SEQ ID NO 1520
;   LENGTH: 1049
;   TYPE: PRT
;   ORGANISM: Saccharomyces cerevisiae
US-10-369-493-1520

  Query Match   24.9%; Score 835.5; DB 3; Length 1049;
  Best Local Similarity   30.5%; Pred. No. 4.5e-77;
  Matches 222; Conservative 134; Mismatches 257; Indels 115; Gaps   18;

```
Qy          1 MSSSNVEVFIPVSQGNTNGFPATASNDLKAFTEGAVLSFHNICYRVKLKSGFLPCRKPVE 60
              : ||   : :|  :   | |     : |      | ||| || | |   :        ||
Db        355 LGSSKSPIRLP-DEDAVNNFLQNEDDTL------ATLSFENITYSVPSINS-----DGVE 402

Qy         61 KEILSNINGIMKPG-LNAILGPTGGGKSSLLDVLAARKDPSGLSGDVLINGAPRP-ANFK 118
              : :|: |:||:||| : ||:| :| ||::|||:|| ::    :|| : :||      :|
Db        403 ETVLNEISGIVKPGQILAIMGGSGAGKTTLLDILAMKRKTGHVSGSIKVNGISMDRKSFS 462

Qy        119 CNSGYVVQDDVVMGTLTVRENLQFSAALRLATTMTNHEKNERINRVIQELGLDKVADSKV 178
                 |:| ||| :: |||| | :  || |||   ::   |  |: :|::|| :  : |  :
Db        463 KIIGFVDQDDFLLPTLTVFETVLNSALLRLPKALSFEAKKARVYKVLEELRIIDIKDRII 522

Qy        179 GTQFIRGVSGGERKRTSIGMELITDPSILFLDEPTTGLDSSTANAVLLLLKRMSKQ-GRT 237
              | :| ||:||||::| ||  ||:| | :|||||||:|||:| || |:  | |:|    ||
Db        523 GNEFDRGISGGEKRRVSIACELVTSPLVLFLDEPTSGLDASNANNVIECLVRLSSDYNRT 582

Qy        238 IIFSIHQPRYSIFKLFDSLTLLASGRLMFHGPAQEALGYFESAGYHCEAYNNPADFFLDI 297
              :: |||||| :|| ||| | ||: | ::: | |::   :  : || |    | ||: :||
Db        583 LVLSIHQPRSNIFYLFDKLVLLSKGEMVYSGNAKKVSEFLRNEGYICPDNYNIADYLIDI 642

Qy        298 ------------------------------------------------------INGDSTAV 305
                                                                     : |
Db        643 TFEAGPQGKRRRIRNISDLEAGTDTNDIDNTIHQTTFTSSDGTTQREWAHLAAHRDEIRS 702

Qy        306 ALNREEDFKATE----IIEPSKQDKPLIEKLAEIYVNSSFYKETKAELHQ-LSGGEKKKK 360
               |  ||| : |:      |     | | :|    | :| :| |   |: : || |:::
Db        703 LLRDEEDVEGTDGRRGATEIDLNTKLLHDK----YKDSVYYAELSQEIEEVLSEGDEESN 758

Qy        361 IT--VFKEISYTTSFCHQLRWVSKRSFKNLLGNPQASIAQIIVTVVLGLVIGAIYFGLKN 418
              :          :  |  ||  :: |||||:  ||:  :   ::|::| | :| :|: : |
Db        759 VLNGDLPTGQQSAGFLQQLSILNSRSFKNMYRNPKLLLGNYLLTILLSLFLGTLYYNVSN 818
```

```
Qy         419 DSTGIQNRAGVLFFLTTNQCFSSVSAVELFVVEKKLFIHEYISGYYRVSSYFLGKLLSDL 478
               | :| ||| |: ||: |   | : : :  | :|: :|| |  : ||   :|:: |::|::
Db         819 DISGFQNRMGLFFFILTYFGFVTFTGLSSFALERIIFIKERSNNYYSPLAYYISKIMSEV 878

Qy         479 LPMTMLPSIIFTCIVYFMLGLKPKADAFFVMMFTLMMVAYSASSMALAIAAGQSVVSVAT 538
               :|: ::| |: : ||| | ||  | :|||  :  |::     |   | |      :: :
Db         879 VPLRVVPPILLSLIVYPMTGLNMKDNAFFKCIGILILFNLGISLEILTIGIIFEDLNNSI 938

Qy         539 LLMTICFVFMMIFSGLLV---NLTTIASWLSWLQYFSIPRYGFTALQHNEF--------- 586
               :|  :  :  ::|||| :   |:| :|    :|: ||:  | : :|  ||
Db         939 ILSVLVLLGSLLFSGLFINTKNITNVA--FKYLKNFSVFYYAYESLLINEVKTLMLKERK 996

Qy         587 LGQNF-CPGLNATGNNPCNYATCTGEEYLVKQGI--DLSPWGLWKNHVALACMIVIFLTI 643
                | |   ||           ||       | | :  |:           ||   |:|| :
Db         997 YGLNIEVPG----------ATILSTFGFVVQNLVFDIK---------ILALFNVVFLIM 1036

Qy         644 AYLKLLFL 651
                || | ::
Db        1037 GYLALKWI 1044
```

```
RESULT 8
US-09-619-049-264
; Sequence 264, Application US/09619049
; Patent No. 7135558
; GENERAL INFORMATION:
;  APPLICANT:  YANDELL, MARK
;  TITLE OF INVENTION:  ISOLATED DROSOPHILA PROTEINS ESSENTIAL
;  TITLE OF INVENTION:  FOR SURVIVAL, NUCLEIC ACID MOLECULES ENCODING ESSENTIAL
;  TITLE OF INVENTION:  DROSOPHILA PROTEINS, AND USES THEREOF AS INSECTICIDAL
;  TITLE OF INVENTION:  TARGETS
;  FILE REFERENCE:  CL000735
;  CURRENT APPLICATION NUMBER: US/09/619,049
;  CURRENT FILING DATE:  2000-07-18
;  PRIOR APPLICATION NUMBER:  60/171,590
;  PRIOR FILING DATE:  1999-12-23
;  PRIOR APPLICATION NUMBER:  60/171,627
;  PRIOR FILING DATE:  1999-12-23
;  PRIOR APPLICATION NUMBER:  60/175,763
;  PRIOR FILING DATE:  2000-01-12
;  PRIOR APPLICATION NUMBER:  60/175,685
;  PRIOR FILING DATE:  2000-01-12
;  PRIOR APPLICATION NUMBER:  60/186,663
;  PRIOR FILING DATE:  2000-03-03
;  PRIOR APPLICATION NUMBER:  60/187,241
;  PRIOR FILING DATE:  2000-03-03
;  NUMBER OF SEQ ID NOS:  1533
;  SOFTWARE:  FastSEQ for Windows Version 4.0
; SEQ ID NO 264
;   LENGTH: 687
;   TYPE: PRT
```

; ORGANISM: DROSOPHILA
US-09-619-049-264

Query Match 24.2%; Score 812; DB 3; Length 687;
Best Local Similarity 32.1%; Pred. No. 6.3e-75;
Matches 210; Conservative 134; Mismatches 251; Indels 60; Gaps 17;

```
Qy          5 NVEVFIPVSQGNTNGFPATASNDLKAFTEGAVLSFHNICYRVKLKSGFLPCRKPVEKEIL 64
              |:::|  |:|      | :    |   | |   :  :|           |  :   | :|
Db         74 NMDIFGAVNQ------PGSGWRQLVNRTRGLFCNERHI-----------PAPR---KHLL 113

Qy         65 SNINGIMKPG-LNAILGPTGGGKSSLLDVLAARKDPSGL----SGDVLINGAPRPA-NFK 118
               |: |:  || | |::| :| ||::||: || |  | |:    ||  |:|| |  |   :
Db        114 KNVCGVAYPGELLAVMGSSGAGKTTLLNALAFR-SPQGIQVSPSGMRLLNGQPVDAKEMQ 172

Qy        119 CNSGYVVQDDVVMGTLTVRENLQFSAALRLATTMTNHEKNERINRVIQELGLDKVADSKV 178
                  || |||: :|:|| ||:| | | :|:   :|  ::  |:::|||| | |   : :
Db        173 ARCAYVQQDDLFIGSLTAREHLIFQAMVRMPRHLTYRQRVARVDQVIQELSLSKCQHTII 232

Qy        179 GTQ-FIRGVSGGERKRTSIGMELITDPSILFLDEPTTGLDSSTANAVLLLLKRMSKQGRT 237
              |    ::|:|||||| :   | :||| :|  ||||:|||| ||::|: :||::|::|:|
Db        233 GVPGRVKGLSGGERKRLAFASEALTDPPLLICDEPTSGLDSFTAHSVVQVLKKLSQKGKT 292

Qy        238 IIFSIHQPRYSIFKLFDSLTLLASGRLMFHGPAQEALGYFESAGYHCEAYNNPADFFLDI 297
              :| :||||   :|:||| : |:| ||: | |   ||: :|   |  |    |||||:: :
Db        293 VILTIHQPSSELFELFDKILLMAEGRVAFLGTPSEAVDFFSYVGAQCPTNYNPADFYVQV 352

Qy        298 INGDSTAVALNREEDFKATEIIEPSKQDKPLIEKLAEIYVNSSFYKETKAELHQLSGGEK 357
              :     ||   || : :               :::|:|  | :  |  : :: ||   :
Db        353 L-----AVVPGREIESR---------------DRIAKICDNFAISKVAR-DMEQLLATKN 391

Qy        358 KKKITVFKEISYT--TSFCHQLRWVSKRSFKNLLGNPQASIAQIIVTVVLGLVIGAIYFG 415
               :|     |  ||   ::  | | |  ||: ::|  |     ::| | :: ::|| |: |
Db        392 LEKPLEQPENGYTYKATWFMQFRAVLWRSWLSVLKEPLLVKVRLIQTTMVAILIGLIFLG 451

Qy        416 LKNDSTGIQNRAGVLFFLTTNQCFSSVSA-VELFVVEKKLFIHEYISGYYRVSSYFLGKL 474
               :    |: |  | :|   ||  | :| | : :|  |  :|: |  |  ||  :|||||
Db        452 QQLTQVGVMNINGAIFLFLTNMTFQNVFATINVFTSELPVFMREARSRLYRCDTYFLGKT 511

Qy        475 LSDLLPMTMLPSIIFTCIVYFMLGLKPKADAFFVMMFTLMMVAYSASSMALAIAAGQSVV 534
              ::: ||: :   ::|| | | |:||:     ||  :  : :||  ::|    |:   |
Db        512 IAE-LPLFLTVPLVFTAIAYPMIGLRAGVLHFFNCLALVTLVANVSTSFGYLISCASSST 570

Qy        535 SVATLLMTICFVFMMIFSGLLVNLTTIASWLSWLQYFSIPRYGFTALQHNEFLGQNFCPG 594
              |:|  :     :  ::| |  :|  ::  :| || | |  ||    |  |::      ||
Db        571 SMALSVGPPVIIPFLLFGGFFLNSGSVPVYLKWLSYLSWFRYANEGLLINQWADVE--PG 628

Qy        595 -LNATGNNPCNYATCTGEEYLVKQGIDLSPWGLWKNHVALACMIVIFLTIAYLKL 648
               :: | :|     ||     :: : :: |   |  ::| || :|| |  :||| |
Db        629 EISCTSSN----TTCPSSGKVILETLNFSAADLPLDYVGLAILIVSFRVLAYLAL 679
```

RESULT 9
US-10-369-493-3799
; Sequence 3799, Application US/10369493
; Patent No. 7314974
; GENERAL INFORMATION:
; APPLICANT: Cao, Yongwei
; APPLICANT: Hinkle, Gregory J.
; APPLICANT: Slater, Steven C.
; APPLICANT: Goldman, Barry S.
; APPLICANT: Chen, Xianfeng
; TITLE OF INVENTION: EXPRESSION OF MICROBIAL PROTEINS IN PLANTS FOR PRODUCTION OF
; TITLE OF INVENTION: PLANTS WITH IMPROVED PROPERTIES
; FILE REFERENCE: 38-10(52052)B
; CURRENT APPLICATION NUMBER: US/10/369,493
; CURRENT FILING DATE: 2003-02-28
; PRIOR APPLICATION NUMBER: US 60/360,039
; PRIOR FILING DATE: 2002-02-21
; NUMBER OF SEQ ID NOS: 47374
; SEQ ID NO 3799
;   LENGTH: 676
;   TYPE: PRT
;   ORGANISM: Neurospora crassa
US-10-369-493-3799

  Query Match   23.7%; Score 795.5; DB 3; Length 676;
  Best Local Similarity   31.2%; Pred. No. 3.2e-73;
  Matches 199; Conservative 107; Mismatches 218; Indels 113; Gaps   11;

```
Qy          61 KEILSNINGIMKPG-LNAILGPTGGGKSSLLDVLAARKDPSGLSGDVLINGAP-RPANFK 118
               |||||  |  |:  || : ||:| :| ||:: ||:|| :     :|||  |||       :|
Db           1 KEILSGIQGMAHPGEVTAIMGASGAGKTTFLDILARKNKRGQVSGDFYINGEKVSDPEYK 60

Qy         119 CNSGYVVQDDVVMGTLTVRENLQFSAALRLATTMTNHEKNERINRVIQELGLDKVADSKV 178
                  |:| |:| :: |||| | :  || |||   ||   | :|:  | ::||:  : || :
Db          61 NAVGFVDQEDTMLPTLTVHETILNSALLRLPKDMTRAAKEQRVIEVEKQLGIYHIRDSLI 120

Qy         179 GTQ--FIRGVSGGERKRTSIGMELITDPSILFLDEPTTGLDSSTA-NAVLLLLKRMSKQG 235
               |::    ||:||||::|  |  ||:| ||||||||||:|||:  | | |  |:
Db         121 GSEEGKGRGISGGEKRRVGIACELVTSPSILFLDEPTSGLDAYNAYNVVECLVTLAKTYK 180

Qy         236 RTIIFSIHQPRYSIFKLFDSLTLLASGRLMFHGPAQEALGYFESAGYHCEAYNNPADFFL 295
               ||:||:|||||  :|  ||| | ||| |: :: ||  :   ||:  || |    | ||: :
Db         181 RTVIFTIHQPRSNIVALFDRLILLAQGKTVYSGPLHQCQEYFDQIGYTCPPGFNIADYLV 240

Qy         296 DI--------------INGDSTAVALNREEDFKA-----------TEIIEPS-------- 322
               |:               :: |  :|  :     |:             ::| |
Db         241 DLTMHAGSTSSYDDGTLSVDGVSVGPSSTRAVKSIASVSGVSIGDDSLVESSSSRPRNKR 300

Qy         323 ------KQDKPL------------------------------------------------ 328
                    :|:: |
Db         301 RDSVRRRQERELYTRRKQAVDTAASSDAGDEIGGYKLQKQPPVTPLRSTNDDLHDLPPLA 360
```

```
Qy        329 -----IEKLAEIYVNSSFYKETKAELHQL------SGGEKKKKITVFKEISYT------- 370
                  :: | | |::|     |  |:||       | |:          | ||
Db        361 ATGTDLDVLIESYIHSDIAASTHEEIHQAIAAAVNSNGQNSNGYVADGNI-YTGTMGKGY 419

Qy        371 --TSFCHQLRWVSKRSFKNLLGNPQASIAQIIVTVVLGLVIGAIYFGLKNDSTGIQNRAG 428
                    |   :|:|::|||  ||   :    : ::| :  | :::||  |  | ||| |
Db        420 ARVGLFRQFVILSQRTWKNLYRNPMLMLTHYAIAILLAVFAGYLFYGLTLDIAGFQNRLG 479

Qy        429 VLFFLTTNQCFSSVSAVELFVVEKKLFIHEYISGYYRVSSYFLGKLLSDLLPMTMLPSII 488
              : ||:     ||:::::: :|  |: ||: |  :|||   :||  |:| |::|: ::| |:
Db        480 LFFFVLALFGFSTLTSLGVFSQERLLFVRERANGYYSPITYFAAKVLFDIVPLRIIPPIL 539

Qy        489 FTCIVYFMLGLKPKADAFFVMMFTLMMVAYSASSMALAIAAGQSVVSVATLLMTICFVFM 548
                 |:| | ||      ||| :  |::   :|::: | |        || |: ::  :|
Db        540 LGAIIYPMTGLVADYQRFFVFILVLVLFNLAAAAICLFIGILCKDGGVANLIGSLVMLFS 599

Qy        549 MIFSGLLVNLTTIASWLSWLQYFSIPRYGFTALQHNE 585
              ::|:|||:|   | :   |||: ||  ||| ||  ||
Db        600 LLFAGLLLNHNAIPAAALWLQWLSIFHYGFEALIVNE 636
```

RESULT 10
US-09-538-092-1125
; Sequence 1125, Application US/09538092
; Patent No. 6753314
; GENERAL INFORMATION:
; APPLICANT: Giot, Loic
; APPLICANT: Mansfield, Traci A.
; TITLE OF INVENTION: Protein-Protein Complexes and Method of Using Same
; FILE REFERENCE: 15966-542
; CURRENT APPLICATION NUMBER: US/09/538,092
; CURRENT FILING DATE: 2000-03-29
; PRIOR APPLICATION NUMBER: 60/127,352
; PRIOR FILING DATE: 1999-04-01
; PRIOR APPLICATION NUMBER: 60/178,965
; PRIOR FILING DATE: 2000-02-01
; NUMBER OF SEQ ID NOS: 1387
; SOFTWARE: CuraPatSeqFormatter Version 0.9
; SEQ ID NO 1125
;   LENGTH: 674
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION: (0)...(0)
;   OTHER INFORMATION: Polypeptide Accession Number P45844
US-09-538-092-1125

  Query Match   21.1%; Score 706.5; DB 2; Length 674;
  Best Local Similarity   28.4%; Pred. No. 6.5e-64;
  Matches 194; Conservative 155; Mismatches 251; Indels   83; Gaps   23;

```
Qy          3 SSNVEVFIPVSQGNTNGFPATASNDL---KAFT----EGAV-LSFHNICYRVKLKSGFLP 54
              |||:|          ||      |:|   : |:      || : | :: | |     :
Db         34 SSNMEA---TETDLLNGHLKKVDNNLTEAQRFSSLPRRAAVNIEFRDLSYSVPEGPWW-- 88

Qy         55 CRKPVEKEILSNINGIMKPG-LNAILGPTGGGKSSLLDVLAARKDPSGLSGDVLINGAPR 113
               ||   | :|  |:|    | | ||:||:| |||:|:::||  :: :|: | ||||| ||
Db         89 -RKKGYKTLLKGISGKFNSGELVAIMGPSGAGKSTLMNILAGYRE-TGMKGAVLINGLPR 146

Qy        114 PAN-FKCNSGYVVQDDVVMGTLTVRENLQFSAALRLATTMTNHEKNERINRVIQELGLDK 172
                  |:  | |::|||:::  |||:| :  || |:|     :  : | :  ::  |||
Db        147 DLRCFRKVSCYIMQDDMLLPHLTVQEAMMVSAHLKLQE--KDEGRREMVKEILTALGLLS 204

Qy        173 VADSKVGTQFIRGVSGGERKRTSIGMELITDPSILFLDEPTTGLDSSTANAVLLLLKRMS 232
               |::: |:     :|||:||| :| :||: :| ::| ||||:|||||::   |: |:| ::
Db        205 CANTRTGS-----LSGGQRKRLAIALELVNNPPVMFFDEPTSGLDSASCFQVVSLMKGLA 259

Qy        233 KQGRTIIFSIHQPRYSIFKLFDSLTLLASGRLMFHGPAQEALGYFESAGYHCEAYNNPAD 292
              : ||:|| :|||||   :|:||| | :|: |: :: |     : |    | :|  |:||||
Db        260 QGGRSIICTIHQPSAKLFELFDQLYVLSQGQCVYRGKVCNLVPYLRDLGLNCPTYHNPAD 319

Qy        293 FFLDIINGDSTAVALNREEDFKATEIIEPSKQDKPLIEKLAEIYVNSSFYKET--KAEL- 349
              | ::: :|                   |   |:  |:  : |   :|   ::    ||:
Db        320 FVMEVASG------------------EYGDQNSRLVRAVREGMCDSDHKRDLGGDAEVN 360

Qy        350 ----HQLSGGEKK-KKITVFKEISYTTSFCH--------QLRWVSKRSFKNLLGNPQASI 396
                  |: |   |: |::   :: | :   ||        |   : ||:| ::: :   :
Db        361 PFLWHRPSEEVKQTKRLKGLRKDSSSMEGCHSFSASCLTQFCILFKRTFLSIMRDSVLTH 420

Qy        397 AQIIVTVVLGLVIGAIYFGLKNDSTGIQNRAGVLFFLTTNQCFSSVSAVEL-FVVEKKLF 455
               :|   : :||:|| :| |: |::  : : :| |||      |:::    | | :|  :|
Db        421 LRITSHIGIGLLIGLLYLGIGNEAKKVLSNSGFLFFSMLFLMFAALMPTVLTFPLEMGVF 480

Qy        456 IHEYISGYYRVSSYFLGKLLSDLLPMTMLPSIIFTCIVYFMLGLKPKADAFFVMMFTL-M 514
              : |::: :| : :|:| | ::| :|  ::  : :  |||:|   :|     ||:   |
Db        481 LREHLNYWYSLKAYYLAKTMAD-VPFQIMFPVAYCSIVYWMTS-QPSDAVRFVLFAALGT 538

Qy        515 MVAYSASSMALAIAAGQSVVSVATLLMTICFVFMMIFSGLLVNLTTIASWLSWLQYFSIP 574
              | :  | |: | | |  : : ||| :  :  : :::|||  |:  || ::| |: | |
Db        539 MTSLVAQSLGLLIGAASTSLQVATFVGPVTAIPVLLFSGFFVSFDTIPTYLQWMSYISYV 598

Qy        575 RYGFT-------ALQHNEFLGQNFCPGLNATGNNPCNYATCTGEEYLVKQGIDLSPWGLW 627
              ||||         |   :         |:   :  |::      | :::: :|:    |:
Db        599 RYGFEGVILSIYGLDRED---------LHCDIDETCHFQK---SEAILRE-LDVENAKLY 645

Qy        628 KNHVALACMIVIFLTIAYLKLLF 650
               : : |    :    |||  | :
Db        646 LDFIVLGIFFISLRLIAYFVLRY 668


RESULT 11
US-10-473-696-6
; Sequence 6, Application US/10473696
```

```
; Patent No. 7211563
; GENERAL INFORMATION:
;  APPLICANT: DeveloGen AG for entwicklungsbiol. Forschung
;  TITLE OF INVENTION: Protein disulfide isomerase and ABC transporter
;  TITLE OF INVENTION:  homologous proteins involved in the regulation of
;  TITLE OF INVENTION:  energy homeostasis
;  FILE REFERENCE: 24941PWO_RI
;  CURRENT APPLICATION NUMBER: US/10/473,696
;  CURRENT FILING DATE:  2003-09-29
;  PRIOR APPLICATION NUMBER: EP01108315.1
;  PRIOR FILING DATE: 2001-04-02
;  NUMBER OF SEQ ID NOS: 21
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 6
;   LENGTH: 663
;   TYPE: PRT
;   ORGANISM: Human
US-10-473-696-6

  Query Match             21.0%;  Score 702.5;  DB 3;  Length 663;
  Best Local Similarity   28.4%;  Pred. No. 1.6e-63;
  Matches  193;  Conservative  153;  Mismatches  246;  Indels   87;  Gaps   23;

Qy          3 SSNVEVFIPVSQGNTNGFPATASNDL---KAFT----EGAV-LSFHNICYRVKLKSGFLP 54
              |||:|          ||      |:|   : |:      || : | :: | |     :
Db         35 SSNMEA---TETDLLNGHLKKVDNNLTEAQRFSSLPRRAAVNIEFRDLSYSVPEGPWW-- 89

Qy         55 CRKPVEKEILSNINGIMKPG-LNAILGPTGGGKSSLLDVLAARKDPSGLSGDVLINGAPR 113
               ||   | :|  |:|    | | ||:||:| |||:|:::||  :: :|: | ||||| ||
Db         90 -RKKGYKTLLKGISGKFNSGELVAIMGPSGAGKSTLMNILAGYRE-TGMKGAVLINGLPR 147

Qy        114 PAN-FKCNSGYVVQDDVVMGTLTVRENLQFSAALRLATTMTNHEKNERINRVIQELGLDK 172
                  |:  | |::|||:::  |||:| :  || |:|     :  : | :  ::  |||
Db        148 DLRCFRKVSCYIMQDDMLLPHLTVQEAMMVSAHLKLQE--KDEGRREMVKEILTALGLLS 205

Qy        173 VADSKVGTQFIRGVSGGERKRTSIGMELITDPSILFLDEPTTGLDSSTANAVLLLLKRMS 232
               |::: |:     :|||:||| :| :||: :| ::| ||||:||||::   |: |:| ::
Db        206 CANTRTGS-----LSGGQRKRLAIALELVNNPPVMFFDEPTSGLDSASCFQVVSLMKGLA 260

Qy        233 KQGRTIIFSIHQPRYSIFKLFDSLTLLASGRLMFHGPAQEALGYFESAGYHCEAYNNPAD 292
              : ||:|| :||||   :|:||| | :|: |: :: |     : |    | :|  |:||||
Db        261 QGGRSIICTIHQPSAKLFELFDQLYVLSQGQCVYRGKVCNLVPYLRDLGLNCPTYHNPAD 320

Qy        293 FFLDIINGDSTAVALNREEDFKATEIIEPSKQDKPLIEKLAEIYVNSSFYKETKAELHQL 352
              | ::: :|                   |   |:  |:  : |   :|    : | :|
Db        321 FVMEVASG------------------EYGDQNSRLVRAVREGMCDS----DHKRDL--- 354

Qy        353 SGGEKKKKITVF----KEISYTTSFCH--------QLRWVSKRSFKNLLGNPQASIAQII 400
               ||: :    ::    :| | :   ||        |   : ||:| ::: :   :  :|
Db        355 -GGDAEVNPFLWHRPSEEDSSSMEGCHSFSASCLTQFCILFKRTFLSIMRDSVLTHLRIT 413

Qy        401 VTVVLGLVIGAIYFGLKNDSTGIQNRAGVLFFLTTNQCFSSVSAVEL-FVVEKKLFIHEY 459
```

```
                 : :||:|| :| |: |::  : : :| |||      |:::    | | :|  :|: |:
Db         414 SHIGIGLLIGLLYLGIGNEAKKVLSNSGFLFFSMLFLMFAALMPTVLTFPLEMGVFLREH 473

Qy         460 ISGYYRVSSYFLGKLLSDLLPMTMLPSIIFTCIVYFMLGLKPKADAFFVMMFTL-MMVAY 518
               :: :| : :|:| | ::| :|  ::  : :  |||:|   :|     ||:   |  | :
Db         474 LNYWYSLKAYYLAKTMAD-VPFQIMFPVAYCSIVYWMTS-QPSDAVRFVLFAALGTMTSL 531

Qy         519 SASSMALAIAAGQSVVSVATLLMTICFVFMMIFSGLLVNLTTIASWLSWLQYFSIPRYGF 578
                | |: | | |  : : ||| :  :  : :::|||  |:  || ::| |: | |  ||||
Db         532 VAQSLGLLIGAASTSLQVATFVGPVTAIPVLLFSGFFVSFDTIPTYLQWMSYISYVRYGF 591

Qy         579 T-------ALQHNEFLGQNFCPGLNATGNNPCNYATCTGEEYLVKQGIDLSPWGLWKNHV 631
                       |   :         |:   :  |::      | :::: :|:    |: : :
Db         592 EGVILSIYGLDRED---------LHCDIDETCHFQK---SEAILRE-LDVENAKLYLDFI 638

Qy         632 ALACMIVIFLTIAYLKLLF 650
                |    :    |||  | :
Db         639 VLGIFFISLRLIAYFVLRY 657
```

RESULT 12
US-11-567-079-6
; Sequence 6, Application US/11567079
; Patent No. 7404952
; GENERAL INFORMATION:
; APPLICANT: DeveloGen AG fur entwicklungsbiol. Forschung
; TITLE OF INVENTION: Protein disulfide isomerase and ABC transporter
; TITLE OF INVENTION: homologous proteins involved in the regulation of
; TITLE OF INVENTION: energy homeostasis
; FILE REFERENCE: 24941PWO_RI
; CURRENT APPLICATION NUMBER: US/11/567,079
; CURRENT FILING DATE: 2006-12-05
; PRIOR APPLICATION NUMBER: EP01108315.1
; PRIOR FILING DATE: 2001-04-02
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 6
;   LENGTH: 663
;   TYPE: PRT
;   ORGANISM: Human
US-11-567-079-6

  Query Match   21.0%; Score 702.5; DB 3; Length 663;
  Best Local Similarity   28.4%; Pred. No. 1.6e-63;
  Matches 193; Conservative 153; Mismatches 246; Indels   87; Gaps   23;

```
Qy           3 SSNVEVFIPVSQGNTNGFPATASNDL---KAFT----EGAV-LSFHNICYRVKLKSGFLP 54
               |||:|          ||      |:|   : |:      || : | :: | |     :
Db          35 SSNMEA---TETDLLNGHLKKVDNNLTEAQRFSSLPRRAAVNIEFRDLSYSVPEGPWW-- 89

Qy          55 CRKPVEKEILSNINGIMKPG-LNAILGPTGGGKSSLLDVLAARKDPSGLSGDVLINGAPR 113
                ||   | :|  |:|    | | ||:||:| |||:|:::||  :: :|: | |||| ||
```

```
Db          90 -RKKGYKTLLKGISGKFNSGELVAIMGPSGAGKSTLMNILAGYRE-TGMKGAVLINGLPR 147

Qy         114 PAN-FKCNSGYVVQDDVVMGTLTVRENLQFSAALRLATTMTNHEKNERINRVIQELGLDK 172
                   |:  | |::|||:::  |||:| :  || |:|     :  : | :  ::  |||
Db         148 DLRCFRKVSCYIMQDDMLLPHLTVQEAMMVSAHLKLQE--KDEGRREMVKEILTALGLLS 205

Qy         173 VADSKVGTQFIRGVSGGERKRTSIGMELITDPSILFLDEPTTGLDSSTANAVLLLLKRMS 232
                |::: |:     :|||:||| :| :||: :| ::| ||||:||||::   |: |:| ::
Db         206 CANTRTGS-----LSGGQRKRLAIALELVNNPPVMFFDEPTSGLDSASCFQVVSLMKGLA 260

Qy         233 KQGRTIIFSIHQPRYSIFKLFDSLTLLASGRLMFHGPAQEALGYFESAGYHCEAYNNPAD 292
               : ||:|| :|||||   :|:||| | :|: |: :: |     : |    | :|  |:||||
Db         261 QGGRSIICTIHQPSAKLFELFDQLYVLSQGQCVYRGKVCNLVPYLRDLGLNCPTYHNPAD 320

Qy         293 FFLDIINGDSTAVALNREEDFKATEIIEPSKQDKPLIEKLAEIYVNSSFYKETKAELHQL 352
               | ::: :|                   |   |:  |:  : |   :|    : | :|
Db         321 FVMEVASG-------------------EYGDQNSRLVRAVREGMCDS----DHKRDL--- 354

Qy         353 SGGEKKKKITVF----KEISYTTSFCH--------QLRWVSKRSFKNLLGNPQASIAQII 400
                ||: :    ::    :| | :   ||        |   : ||:| ::: :   :  :|
Db         355 -GGDAEVNPFLWHRPSEEDSSSMEGCHSFSASCLTQFCILFKRTFLSIMRDSVLTHLRIT 413

Qy         401 VTVVLGLVIGAIYFGLKNDSTGIQNRAGVLFFLTTNQCFSSVSAVEL-FVVEKKLFIHEY 459
                 : :||:|| :| |: |::  : : :| |||      |:::    | | :|  :|: |:
Db         414 SHIGIGLLIGLLYLGIGNEAKKVLSNSGFLFFSMLFLMFAALMPTVLTFPLEMGVFLREH 473

Qy         460 ISGYYRVSSYFLGKLLSDLLPMTMLPSIIFTCIVYFMLGLKPKADAFFVMMFTL-MMVAY 518
               :: :| : :|:| | ::| :|  ::  : :  |||:|   :|     ||:   |  | :
Db         474 LNYWYSLKAYYLAKTMAD-VPFQIMFPVAYCSIVYWMTS-QPSDAVRFVLFAALGTMTSL 531

Qy         519 SASSMALAIAAGQSVVSVATLLMTICFVFMMIFSGLLVNLTTIASWLSWLQYFSIPRYGF 578
                | |: | | |  : : ||| :  :  : :::|||  |:  || ::| |: | |  ||||
Db         532 VAQSLGLLIGAASTSLQVATFVGPVTAIPVLLFSGFFVSFDTIPTYLQWMSYISYVRYGF 591

Qy         579 T-------ALQHNEFLGQNFCPGLNATGNNPCNYATCTGEEYLVKQGIDLSPWGLWKNHV 631
                     |   :         |:   :  |::      | :::: :|:    |: : :
Db         592 EGVILSIYGLDRED---------LHCDIDETCHFQK---SEAILRE-LDVENAKLYLDFI 638

Qy         632 ALACMIVIFLTIAYLKLLF 650
                |    :    |||  | :
Db         639 VLGIFFISLRLIAYFVLRY 657


RESULT 13
US-09-989-981A-2
; Sequence 2, Application US/09989981A
; Patent No. 6821750
; GENERAL INFORMATION:
;  APPLICANT: Hobbs, Helen H.
;  APPLICANT:  Shan, Bei
;  APPLICANT:  Barnes, Robert
;  APPLICANT:  Tian, Hui
```

```
;  APPLICANT:  Tularik Inc.
;  APPLICANT:  Board of Regents, The University of Texas System
;  TITLE OF INVENTION: ABCG5 and ABCG8:  Compositions and Methods of Use
;  FILE REFERENCE: 018781-007320US
;  CURRENT APPLICATION NUMBER: US/09/989,981A
;  CURRENT FILING DATE:  2002-07-23
;  PRIOR APPLICATION NUMBER: US 60/252,235
;  PRIOR FILING DATE: 2000-11-20
;  PRIOR APPLICATION NUMBER: US 60/253,645
;  PRIOR FILING DATE: 2000-11-28
;  NUMBER OF SEQ ID NOS: 13
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 2
;   LENGTH: 652
;   TYPE: PRT
;   ORGANISM: Mus musculus
;   FEATURE:
;   OTHER INFORMATION: mouse ABCG5 (mABCG5)
US-09-989-981A-2

  Query Match             20.7%;  Score 693.5;  DB 2;  Length 652;
  Best Local Similarity   29.0%;  Pred. No. 1.4e-62;
  Matches  181;  Conservative  142;  Mismatches  246;  Indels   55;  Gaps   16;

Qy         12 VSQGNTNGFPATASNDLKAFTEGAVLSFHNICYRVKLKSG----FLPCRKPVEKEILSNI 67
              : ||:  |  |  |           |   :: | |  : |       |::  :::|| ::
Db         25 LEQGSVTGTEARHS-----------LGVLHVSYSVSNRVGPWWNIKSCQQKWDRQILKDV 73

Qy         68 NGIMKPG-LNAILGPTGGGKSSLLDVLAARKDPSG-LSGDVLINGAP-RPANFKCNSGYV 124
              :  :: | :  ||| :| ||::||| :: |   :| | |:| :||   |   |:    ||
Db         74 SLYIESGQIMCILGSSGSGKTTLLDAISGRLRRTGTLEGEVFVNGCELRRDQFQDCFSYV 133

Qy        125 VQDDVVMGTLTVRENLQFSAALRLATTMTNHEKNERINRVIQELGLDKVADSKVGTQFIR 184
              :| || : :||||| |:::| | |  :  :   |:::  |: || |  |||  :|:
Db        134 LQSDVFLSSLTVRETLRYTAMLALCRSSADF-YNKKVEAVMTELSLSHVADQMIGSYNFG 192

Qy        185 GVSGGERKRTSIGMELITDPSILFLDEPTTGLDSSTANAVLLLLKRMSKQGRTIIFSIHQ 244
              |:| |||:| ||  :|: || :: |||||||||  ||| ::|||  :::: | :| :|||
Db        193 GISSGERRRVSIAAQLLQDPKVMMLDEPTTGLDCMTANQIVLLLAELARRDRIVIVTIHQ 252

Qy        245 PRYSIFKLFDSLTLLASGRLMFHGPAQEALGYFESAGYHCEAYNNPADFFLDIINGDSTA 304
              ||  :|: || : :|  | |:| |  :| ||:| : || |  ::|| ||::|: : |:
Db        253 PRSELFQHFDKIAILTYGELVFCGTPEEMLGFFNNCGYPCPEHSNPFDFYMDLTSVDTQ- 311

Qy        305 VALNRE-EDFKATEIIEPSKQDKPLIEKLAEIYVNSSFYKETKAELHQLSGGEKKKKITV 363
               :  || | :|  :::| : ::  :  |:                   |   |: : :
Db        312 -SREREIETYKRVQMLECAFKESDIYHKI------------------LENIERARYLKT 351

Qy        364 FKEISYTT----SFCHQLRWVSKRSFKNLLGNPQASIAQIIVTVVLGLVIGAIYFGLKND 419
                 : : |        :|  : :|  :||: | || | :::  :::|| :      ::|:
Db        352 LPMVPFKTKDPPGMFGKLGVLLRRVTRNLMRNKQAVIMRLVQNLIMGLFLIFYLLRVQNN 411
```

```
Qy         420 ST--GIQNRAGVLFFLTTNQCFSS-VSAVELFVVEKKLFIHEYISGYYRVSSYFLGKLLS 476
               :    :|:| |:|: |     ::  ::|| || : : :   |   | |      |  :|
Db         412 TLKGAVQDRVGLLYQLVGATPYTGMLNAVNLFPMLRAVSDQESQDGLYHKWQMLLAYVL- 470

Qy         477 DLLPMTMLPSIIFTCIVYFMLGLKPKADAFFVMMFTLM---MVAYSASSMALAIAAGQSV 533
                :|| ::: ::||: : |: ||| |:   |      |:   ::    : : | |    ::
Db         471 HVLPFSVIATVIFSSVCYWTLGLYPEVARFGYFSAALLAPHLIGEFLTLVLLGIVQNPNI 530

Qy         534 VSVATLLMTICFVFMMIFSGLLVNLTTIASWLSWLQYFSIPRYGFTALQHNEFLGQNF-C 592
               |:    |::|    ::| || : |:  :   |  | ||:  :|    |  ||| | || |
Db         531 VNSIVALLSIS--GLLIGSGFIRNIQEMPIPLKILGYFTFQKYCCEILVVNEFYGLNFTC 588

Qy         593 PGLNATGNNPCNYATCTGEEYLVK 616
                | | :  |    |   | ::: |
Db         589 GGSNTSMLNHPMCAITQGVQFIEK 612
```

RESULT 14
US-09-837-992-1
; Sequence 1, Application US/09837992
; Patent No. 7033810
; GENERAL INFORMATION:
; APPLICANT: Tian, Hui
; APPLICANT: Schultz, Joshua
; APPLICANT: Shan, Bei
; APPLICANT: Tularik Inc.
; TITLE OF INVENTION: Sitosterolemia Susceptibility Gene (SSG): Compositions
; TITLE OF INVENTION: and Methods of Use
; FILE REFERENCE: 018781-006020US
; CURRENT APPLICATION NUMBER: US/09/837,992
; CURRENT FILING DATE: 2001-04-18
; PRIOR APPLICATION NUMBER: US 60/198,465
; PRIOR FILING DATE: 2000-04-18
; PRIOR APPLICATION NUMBER: US 60/204,234
; PRIOR FILING DATE: 2000-05-15
; NUMBER OF SEQ ID NOS: 45
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 1
;   LENGTH: 652
;   TYPE: PRT
;   ORGANISM: Mus musculus
;   FEATURE:
;   OTHER INFORMATION: mouse sitosterolemia susceptibility gene (SSG)
;   OTHER INFORMATION: amino acid sequence
US-09-837-992-1

  Query Match   20.7%; Score 693.5; DB 3; Length 652;
  Best Local Similarity   29.0%; Pred. No. 1.4e-62;
  Matches 181; Conservative 142; Mismatches 246; Indels   55; Gaps   16;

```
Qy          12 VSQGNTNGFPATASNDLKAFTEGAVLSFHNICYRVKLKSG----FLPCRKPVEKEILSNI 67
               : ||:  |  |  |           |   :: | |  : |       |::  :::|| ::
```

```
Db          25 LEQGSVTGTEARHS-----------LGVLHVSYSVSNRVGPWWNIKSCQQKWDRQILKDV 73

Qy          68 NGIMKPG-LNAILGPTGGGKSSLLDVLAARKDPSG-LSGDVLINGAP-RPANFKCNSGYV 124
               :  :: | :  ||| :| ||::||| :: |   :| | |:| :||   |   |:    ||
Db          74 SLYIESGQIMCILGSSGSGKTTLLDAISGRLRRTGTLEGEVFVNGCELRRDQFQDCFSYV 133

Qy         125 VQDDVVMGTLTVRENLQFSAALRLATTMTNHEKNERINRVIQELGLDKVADSKVGTQFIR 184
               :| || : :||||| |:::| | |  :  :   |:::  |: || |  |||  :|:
Db         134 LQSDVFLSSLTVRETLRYTAMLALCRSSADF-YNKKVEAVMTELSLSHVADQMIGSYNFG 192

Qy         185 GVSGGERKRTSIGMELITDPSILFLDEPTTGLDSSTANAVLLLLKRMSKQGRTIIFSIHQ 244
               |:| |||:| ||  :|: || :: |||||||||  ||| ::|||  :::: | :| :|||
Db         193 GISSGERRRVSIAAQLLQDPKVMMLDEPTTGLDCMTANQIVLLLAELARRDRIVIVTIHQ 252

Qy         245 PRYSIFKLFDSLTLLASGRLMFHGPAQEALGYFESAGYHCEAYNNPADFFLDIINGDSTA 304
               ||  :|: || : :|  | |:| |  :| ||:| : || |  ::|| ||::|: : |:
Db         253 PRSELFQHFDKIAILTYGELVFCGTPEEMLGFFNNCGYPCPEHSNPFDFYMDLTSVDTQ- 311

Qy         305 VALNRE-EDFKATEIIEPSKQDKPLIEKLAEIYVNSSFYKETKAELHQLSGGEKKKKITV 363
                :  || | :|  :::| : ::  :  |:                   |   |: : :
Db         312 -SREREIETYKRVQMLECAFKESDIYHKI------------------LENIERARYLKT 351

Qy         364 FKEISYTT----SFCHQLRWVSKRSFKNLLGNPQASIAQIIVTVVLGLVIGAIYFGLKND 419
                  : : |        :|  : :|  :||: | || | :::  :::|| :      ::|:
Db         352 LPMVPFKTKDPPGMFGKLGVLLRRVTRNLMRNKQAVIMRLVQNLIMGLFLIFYLLRVQNN 411

Qy         420 ST--GIQNRAGVLFFLTTNQCFSS-VSAVELFVVEKKLFIHEYISGYYRVSSYFLGKLLS 476
               :    :|:| |:|: |     ::  ::|| || : : :   |   | |      |  :|
Db         412 TLKGAVQDRVGLLYQLVGATPYTGMLNAVNLFPMLRAVSDQESQDGLYHKWQMLLAYVL- 470

Qy         477 DLLPMTMLPSIIFTCIVYFMLGLKPKADAFFVMMFTLM---MVAYSASSMALAIAAGQSV 533
                :|| ::: ::||: : |: ||| |:   |      |:   ::    : : | |    ::
Db         471 HVLPFSVIATVIFSSVCYWTLGLYPEVARFGYFSAALLAPHLIGEFLTLVLLGIVQNPNI 530

Qy         534 VSVATLLMTICFVFMMIFSGLLVNLTTIASWLSWLQYFSIPRYGFTALQHNEFLGQNF-C 592
               |:    |::|    ::| || : |:  :   |  | ||:  :|    |  ||| | || |
Db         531 VNSIVALLSIS--GLLIGSGFIRNIQEMPIPLKILGYFTFQKYCCEILVVNEFYGLNFTC 588

Qy         593 PGLNATGNNPCNYATCTGEEYLVK 616
                | | :  |    |   | ::: |
Db         589 GGSNTSMLNHPMCAITQGVQFIEK 612
```

RESULT 15
US-11-128-026-1
; Sequence 1, Application US/11128026
; Patent No. 7229816
; GENERAL INFORMATION:
; APPLICANT: Tian, Hui
; APPLICANT: Schultz, Joshua
; APPLICANT: Shan, Bei
; APPLICANT: Tularik Inc.

```
;  TITLE OF INVENTION: Sitosterolemia Susceptibility Gene (SSG):  Compositions
;  TITLE OF INVENTION:  and Methods of Use
;  FILE REFERENCE: 018781-006020US
;  CURRENT APPLICATION NUMBER: US/11/128,026
;  CURRENT FILING DATE:  2005-05-11
;  PRIOR APPLICATION NUMBER: US/09/837,992
;  PRIOR FILING DATE: 2001-04-18
;  PRIOR APPLICATION NUMBER: US 60/198,465
;  PRIOR FILING DATE: 2000-04-18
;  PRIOR APPLICATION NUMBER: US 60/204,234
;  PRIOR FILING DATE: 2000-05-15
;  NUMBER OF SEQ ID NOS: 45
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 1
;   LENGTH: 652
;   TYPE: PRT
;   ORGANISM: Mus musculus
;   FEATURE:
;   OTHER INFORMATION: mouse sitosterolemia susceptibility gene (SSG)
;   OTHER INFORMATION: amino acid sequence
US-11-128-026-1

  Query Match             20.7%;  Score 693.5;  DB 3;  Length 652;
  Best Local Similarity   29.0%;  Pred. No. 1.4e-62;
  Matches  181;  Conservative  142;  Mismatches  246;  Indels   55;  Gaps   16;

Qy          12 VSQGNTNGFPATASNDLKAFTEGAVLSFHNICYRVKLKSG----FLPCRKPVEKEILSNI 67
               : ||:  |  |  |           |   :: | |  : |       |::  :::|| ::
Db          25 LEQGSVTGTEARHS----------LGVLHVSYSVSNRVGPWWNIKSCQQKWDRQILKDV 73

Qy          68 NGIMKPG-LNAILGPTGGGKSSLLDVLAARKDPSG-LSGDVLINGAP-RPANFKCNSGYV 124
               :  :: | :  ||| :| ||::||| :: |   :| | |:| :||   |   |:    ||
Db          74 SLYIESGQIMCILGSSGSGKTTLLDAISGRLRRTGTLEGEVFVNGCELRRDQFQDCFSYV 133

Qy         125 VQDDVVMGTLTVRENLQFSAALRLATTMTNHEKNERINRVIQELGLDKVADSKVGTQFIR 184
               :| || : :||||| |:::| | |  :  :   |:::  |: || |  |||  :|:
Db         134 LQSDVFLSSLTVRETLRYTAMLALCRSSADF-YNKKVEAVMTELSLSHVADQMIGSYNFG 192

Qy         185 GVSGGERKRTSIGMELITDPSILFLDEPTTGLDSSTANAVLLLLKRMSKQGRTIIFSIHQ 244
               |:| |||:| ||  :|: || :: |||||||||  ||| ::|||  :::: | :| :|||
Db         193 GISSGERRRVSIAAQLLQDPKVMMLDEPTTGLDCMTANQIVLLLAELARRDRIVIVTIHQ 252

Qy         245 PRYSIFKLFDSLTLLASGRLMFHGPAQEALGYFESAGYHCEAYNNPADFFLDIINGDSTA 304
               ||  :|: || : :|  | |:| |  :| ||:| : || |  ::|| ||::|: : |:
Db         253 PRSELFQHFDKIAILTYGELVFCGTPEEMLGFFNNCGYPCPEHSNPFDFYMDLTSVDTQ- 311

Qy         305 VALNRE-EDFKATEIIEPSKQDKPLIEKLAEIYVNSSFYKETKAELHQLSGGEKKKKITV 363
                :  || | :|  :::| : ::  :  |:                   |   |: : :
Db         312 -SREREIETYKRVQMLECAFKESDIYHKI-------------------LENIERARYLKT 351

Qy         364 FKEISYTT----SFCHQLRWVSKRSFKNLLGNPQASIAQIIVTVVLGLVIGAIYFGLKND 419
                  : : |        :|  : :|  :||: | || | :::  :::|| :      ::|:
```

```
Db        352 LPMVPFKTKDPPGMFGKLGVLLRRVTRNLMRNKQAVIMRLVQNLIMGLFLIFYLLRVQNN 411

Qy        420 ST--GIQNRAGVLFFLTTNQCFSS-VSAVELFVVEKKLFIHEYISGYYRVSSYFLGKLLS 476
              :    :|:| |:|: |     ::  ::|| || : : :   |   | |      |  :|
Db        412 TLKGAVQDRVGLLYQLVGATPYTGMLNAVNLFPMLRAVSDQESQDGLYHKWQMLLAYVL- 470

Qy        477 DLLPMTMLPSIIFTCIVYFMLGLKPKADAFFVMMFTLM---MVAYSASSMALAIAAGQSV 533
               :|| ::: ::||: : |: ||| |:   |      |:   ::    : : | |    ::
Db        471 HVLPFSVIATVIFSSVCYWTLGLYPEVARFGYFSAALLAPHLIGEFLTLVLLGIVQNPNI 530

Qy        534 VSVATLLMTICFVFMMIFSGLLVNLTTIASWLSWLQYFSIPRYGFTALQHNEFLGQNF-C 592
              |:    |::|    ::| || : |:  :   |  | ||:  :|    |  ||| | || |
Db        531 VNSIVALLSIS--GLLIGSGFIRNIQEMPIPLKILGYFTFQKYCCEILVVNEFYGLNFTC 588

Qy        593 PGLNATGNNPCNYATCTGEEYLVK 616
               | | :  |    |   | ::: |
Db        589 GGSNTSMLNHPMCAITQGVQFIEK 612


Search completed: September 18, 2008, 22:10:39
Job time : 76 secs
```